

Running head: TREATMENT DECISION MAKING IN THE POSTPARTUM PERIOD

Treatment Decision Making in the Postpartum Period:
Examining Women's Preferences and Perspectives

by

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Abstract

This research study aims to understand the medical decision-making process for new mothers who may be experiencing depression, anxiety, or psychological distress following birth, and understanding their treatment preferences. This study replicates one by Patel and Wisner (2011), and was developed from their suggestions in further research. The goal was to replicate the methodology with a more diverse sample of new mothers. The study reviews recent literature on postpartum depression and anxiety, including, symptoms, etiology, risk factors, the impact on family functioning and child development, as well as the literature on medical decision-making. The Decisional Conflict Scale, the Problem-Solving Decision Making Scale, and the Control Preferences Scale were used to assess the decision-making process, desired control in problem solving and decision making, and decisional conflict. The results revealed that women preferred more collaborative problem solving related to diagnosing, and preferred to retain more responsibility related to decision making about treatment. The group of mothers who had made a decision about treatment endorsed statistically lower levels of decisional conflict versus those who had not made a treatment decision. Furthermore, respondents who endorsed a diagnosis of depression, anxiety, or a mood disorder (self-reported) also endorsed statistically lower levels of decisional conflict. In reference to decision making and preferences, there was no difference found between groups of respondents who endorsed psychological distress and those who did not. Regardless of symptoms, respondents indicated they preferred collaborative decision-making and wanted to retain control in the process.

Keywords: Postpartum Depression, Medical Decision Making, Treatment

Treatment Decision Making in the Postpartum Period:
Examining Women's Preferences and Perspectives

Postpartum depression and other perinatal psychiatric disorders are significant health issues for new mothers, families, and children. The prevalence of perinatal psychiatric disorders (PPD), including depression and anxiety, varies depending on the definition being used, but recent estimates indicate between 7%-20% of mothers in the United States will experience depression and/or anxiety in the perinatal or postpartum period (Mayberry, Horowitz, & Decler, 2007; O'Hara & Wisner, 2014; Stuart & Koleva, 2014; Wisner et al., 2000). Despite extensive research on risk factors, onset, course, epistemology, and treatment options, there are many underserved women who still do not engage in treatment (McCarthy & McMahon, 2008). The dissemination of knowledge about PPD, while important, has not done enough to encourage mothers to seek professional services. More research is warranted to understand postpartum depression, what is involved in the medical decision-making process, and what factors prompt women to seek treatment (McCarthy & McMahon, 2008). Women seek invaluable support from family members, friends, community organizations, and services outside of the mental health profession; however, given the impact of PPD on family functioning, the mother's mental health, and infant development, providers and clinicians must work to support women in the medical decision-making process. There are mental health and physical health consequences associated with untreated postpartum depression. As such, there is a need to understand the medical decision-making process for women who may be experiencing these symptoms (Horowitz, Damato, Duffy, & Solon, 2005; Sit & Wisner, 2005). With increased knowledge about this process during the postpartum period, medical providers will be better equipped to support new mothers.

This study investigated the treatment decision-making process for women in the postpartum period, and was based on Patel and Wisner's (2011) quantitative investigation of medical decision making. Patel and Wisner used the Control Preferences Scale, the Problem Solving Decision Making Scale, and the Decisional Conflict Scale to investigate the women's decision-making process, women's desired role in the decision, and their preferred treatment options (Patel, 2011; Patel & Wisner, 2011). Patel and Wisner suggested replicating the methodology as the women in their study were predominantly white, upper or middle class, married, and college educated. Patel and Wisner noted that the homogenous sample was a limitation in the study, and this study hoped to address this issue. The current study looked to understand medical decision making with a wider variety of women to determine their desired roles in decision making, their treatment preferences, and the level of decisional conflict related to medical decision making in the postpartum period.

Treatment decision making has been an area of interest in the medical profession for many years. The literature shows that patients struggle to decide which medical options are best suited for them, and this can delay their participation in treatment. Women with postpartum depression experience this internal struggle and are unsure about which interventions are best for their situation (Sit & Wisner, 2005). There is an adjustment period following childbirth; stress levels increase and the ability to cope decreases as internal resources are strained. Cognitive flexibility and decision-making abilities are taxed in the midst of other changes, and it is important to understand this process to provide the best possible care (Sit & Wisner, 2005). There are various treatment modalities available including psychopharmacological interventions, psychotherapy, and increased social support, but many women have trouble weighing the options and ultimately making a choice (Leahy-Warren & McCarthy, 2007). Knowledge gained through

this quantitative investigation helps understand women's perspectives and gives information about the level of decisional conflict. This information can help providers better understand and effectively support the decision-making process (Sit & Wisner, 2005). Given the various factors associated with medical decision making, this quantitative investigation focused mainly on a woman's desired role in problem solving and decision making (e.g., active, passive, or collaborative), decisional conflict regarding treatment options, and the level of control they wish to have in making the final decision about their mental health treatment. The results indicate there are factors associated with decision making in the postpartum period which, if attended to, can help support women making the decision whether or not to seek treatment and which options may be their preferred treatment modality.

Background

New mothers experience many changes following birth, including physical, psychological, and family changes. If a new mother develops symptoms of depression, or experiences significant psychological stress or anxiety, she may experience a decline in her internal coping resources. The increase in psychosocial stress related to their role change as they adjust to life as a parent can impact many areas of functioning (Horowitz et al., 2005). Furthermore, many women face stigma associated with depressed mood following childbirth and are reluctant to ask for help for fear of being judged by others (Dennis & Chung-Lee, 2006). Many women are reluctant to use medications for depression or other psychiatric disorders, particularly when pregnant and breastfeeding, due to the potential risks and impact on the infant. Research regarding the impact of antidepressants on fetal and infant development is mixed, but women are understandably concerned with the potential risks associated with this treatment option (Misri et al., 2013). Increased stress following childbirth and difficulty accessing support

can leave many women feeling reluctant to engage in treatment. The medical community has made strides to support new mothers, but there is still a need to help more women engage in treatment. Medical providers do their best to support women and their families, but they are often unsure how to make an appropriate referral if they uncover symptoms of depression or anxiety. Physicians' time and resources are strained, and they are often uncomfortable diagnosing and treating psychiatric conditions. Although they may screen for symptoms, they do not always know the next step if the screen is positive for depression or anxiety (Pearlstein, 2008). This study helps to understand the patient's experience, and give information to providers with the hope they can better support the decision-making process. There are many factors that hamper the ability to seek and engage in treatment, but if providers have a better understanding of the factors involved in decision making, they can be more helpful to their patients and their families. For these reasons, it is important to educate the medical community on the factors that facilitate treatment decisions.

Statement of the Problem

Medical decision making and the Patel and Wisner (2011) study. New mothers struggle with the decision to seek treatment and, once they do, which treatments are best for them. They may have information on postpartum and perinatal depression and anxiety, but the information alone may not be enough to help them make a decision. There are many variables involved in the decision-making process, such as feasibility and access to care, or the risks and benefits of the treatment, and the impact on the child (e.g., psychopharmacological interventions, perinatal risk, and neonatal risk, and breast feeding). The underlying issues that may prevent women from participating in treatment include accessibility to care, cost, and stigma associated with postpartum depression and anxiety. The medical community has investigated patients'

desired roles in decision making for many conditions, but decision making related to psychological treatment is unique. For a patient with depression, there are other factors at play which may influence the decision-making process (Sit & Wisner, 2005). While increased knowledge about the various treatments is critical, it is also important to understand how a woman views her role in making healthcare decisions (Wisner et al., 2000). While the medical literature provides information regarding decision making for other conditions, it is important to investigate these issues in the context of mental health treatment.

Patel and Wisner's (2011) study revealed that women wanted (a) a collaborative relationship with their provider, wanted (b) shared decision making, and (c) opted for combined psychotherapeutic and psychopharmacological treatments. Their investigation revealed that, in general, women wanted a more active role in medical decision making; however, the study was conducted with a homogenous sample of women who were White, generally well-educated, and from a higher socioeconomic status. Women with limited social and economic resources may have different preferences in regards to decision making. For example, access to healthcare can have a significant impact on medical decision making as women with fewer resources may have more limited treatment options. Psychological inquiry and research should be representative of the population as a whole, and one goal of this study was to address the lack of diversity in the previous sample. The current study addressed some of the homogeneity problems, including socioeconomic diversity, but more research with racial and ethnic minorities, or other marginalized populations, would help providers greatly. There are various treatments available, but they are useless if they are underutilized. Therefore, it is important to understand how women approach this decision and how medical providers can use this information to support decision-making (Patel & Wisner, 2011). By doing so, providers can understand women's

perspectives and desired role in making the decision, thus increasing the likelihood that they will seek treatment.

Diversity. Ross, Campbell, Dennis, and Blackmore (2006) examined demographic variables reported in various research studies on postpartum depression to determine if the current literature represents the majority of women. They discovered that approximately 50% of studies did not sufficiently report on or collect demographic data. It is difficult to discern where and to whom the results are applicable without this information. The literature that sufficiently reported and collected demographic variables revealed that the majority of the research was conducted with homogeneous samples of women 25-35 years-old, and who were partnered or married. Almost two-thirds of the research on PPD reviewed by Ross et al. had been with women from middle or high SES. Research has provided a wealth of knowledge on PPD, but it is important to recognize the limitations and expand the research to make it applicable to all women.

One goal of this study was to recruit as many women as possible from all backgrounds, but there is an inherent limitation given the region where the study was conducted. Participants who completed the surveys in this study are more varied in terms of their socioeconomic status and level of education as compared to the previous study (Patel & Wisner, 2011). Other studies have found that some risk factors for PPD are associated with low socioeconomic status, but this population is under represented in the literature. Limited economic and financial resources have been correlated with higher rates of PPD, and women with little social or emotional support are at greater risk for developing PPD. Marital status, as a part of social support, has also been correlated with higher rates of PPD (Segre, O'Hara, Arndt, & Stuart, 2007). While lower SES is not a direct predictor of PPD, there are higher rates of known risk factors found within this

population. The current study did include more variability related to socioeconomic and education status compared to previous research. Given the limitations in the area where the study was conducted, the study sample was limited in terms of ethnic and racial diversity. The sampling procedures included reaching out through social media, contacting local online mother's groups, and collaborating with others who work with new mothers in the region, and accessing participants through email distributions. The study addressed some, but not all, of the issues related to the homogeneity of the previous study.

Objectives of the current study. This study aimed to investigate the decision-making process for new mothers, some of whom may have experienced psychological distress or symptoms of depression or anxiety following birth. Patel and Wisner' study (2011) revealed important factors related to women's perspectives on decision making, but there were limitations inherent in the homogeneous sample. Their research reflects the trend in the literature to use homogenous samples and it is important to expand their findings. The study uncovered valuable information in regards to decision making and preferences, and the goal of this study is to use their methodology to understand if the conclusions are similar for a more diverse sample. This was met with some success as the participants in this study represent more of a variety than in the previous sample, although there is still a lack of ethnic and racial diversity. A review of the literature indicates that while much is known about PPD, many women are underrepresented in the research studies. Women who are at an increased risk for developing PPD must be included to gain a better understanding of their experience and how to help them seek treatment. It is important to determine if increased psychosocial stressors associated with lower SES, or other demographic variables, affect women's decision-making process or treatment preferences. Given that many groups of women are underrepresented in the current literature (Ross et al., 2006;

Segre et al., 2007), this study sought to investigate if previous findings based on homogenous samples can be applied to a more diverse population.

Research questions and hypotheses based on previous research. This study is a quantitative exploration of women's perspectives on making the decision to seek treatment and sought to help understand: (a) women's treatment preferences, (b) decisional conflict, and (c) the role women want to play in regards to treatment decisions. Through a better understanding of the decision-making process, doctors and clinicians can provide better recommendations for treatment and help women get the support they need. This study looked to answer the following research questions which stem from Patel and Wisner's (2011) study: (a) What are women's treatment preferences for PPD?; (b) What is the level of decisional conflict for these new mothers?; and (c) What role do women want in making the treatment decision (p. 590).

Women's treatment preferences may be different given their education level, marital status, SES, or geographic location. The objective was to gain a more complete understanding of women's perspectives on this topic.

Previous research indicated women prefer the collaborative decision-making process, but wish to defer problem solving activities (e.g., diagnosis) to their provider. This is the general trend in the medical literature, as well as the research specifically exploring postpartum depression (Patel & Wisner, 2011). However, there is variability in regards to some decision-making processes when accounting for socio-demographic variables. Patel and Bakken (2010) researched medical decision making with an ethnic minority population. Their study revealed that, while clients still preferred shared decision making for treatment, they had a more passive decision-making style. Furthermore, Levinson, Kao, Kuby, and Thisted (2005) revealed a similar trend in medical decision making. They investigated three aspects of decision making: options,

knowledge, and the decision. Their study revealed that knowledge and the decision varied depending on socio-demographic variables, but found no differences in regards to options for treatment. It appears that everyone prefers to be offered choices by their doctor. However, they found that individuals with higher education status preferred more active participation in decision making. They confirmed the finding that women preferred an active role in decision making, and also the finding that Hispanic and African American participants deferred more to the physician for knowledge and final decision making (Levinson, Kao, Kuby, & Thisted, 2005). Given the variability, one goal of this study will be to clarify, and hopefully support, earlier research.

In response to treatment preferences, it was hypothesized that women in this study would prefer the combined treatment options, utilizing both medication and psychotherapy for the treatment of postpartum depression. It was hypothesized that women would prefer an active role in decision making; specifically, they will defer problem solving (e.g., generating a diagnosis) to their provider, but will prefer a collaborative or active role in deciding which treatment as measured by the Problem Solving Decision Making Scale (Deber, Kraetschmer, & Irvine, 1996; Patel & Wisner, 2011). Their results indicated that women did prefer an active role in treatment decision making but also preferred that there is collaboration in determining a diagnosis as well. Patel and Wisner (2011) assessed for decisional conflict which can delay decision making. While decisional conflict was present for many participants in their study, it did not reach levels associated with delayed decision making. Therefore, it was hypothesized that decisional conflict would be present for many women in the current study, but impact on decision making may vary. This investigation aimed to uncover treatment preferences and it was hypothesized that: (a)

participants will prefer the combined treatment option, (b) women would prefer collaborative decision making, and (c) decisional conflict may be present for most women.

Literature Review

The phenomenon of postpartum and perinatal depression, anxiety, and other mood disorders, and how they are defined, diagnosed, and conceptualized continues to be debated. This was reflected in the changes to the DSM-5 regarding depression and anxiety, and other psychiatric conditions with peripartum onset (APA, 2013; Sharma & Mazmanian, 2014). Diagnostically, there is not a distinct category for postpartum depression or anxiety. It is a diagnostic specifier in the DSM-5 which states that symptom onset has occurred between 4 weeks and 6 months after childbirth (e.g., with peripartum onset). This specifier can be used with psychiatric disorders including depressive disorder, bipolar and related disorders, and brief psychotic disorders (APA, 2013). One positive change in the DSM-5 is that it was acknowledged that symptoms can emerge during pregnancy which may result in closer monitoring, detection, and early intervention (O'Hara & Wisner, 2014; Sharma & Maziman, 2013). While the changes in the DSM-5 were a step in the right direction, many advocates and researchers in the field have proposed the changes were not substantial enough (O'Hara & Wisner, 2014; Sharma & Maziman, 2013). The specifier cannot be used with anxiety or obsessive-compulsive and related disorders which many women experience in the peripartum and postpartum periods (Sharma & Maziman, 2013). Furthermore, many women experience symptom onset outside of the proposed timeline. Most research indicates symptoms can emerge anytime in the postpartum period (up to the first year). There is also concern that the DSM-5 changes do not accurately describe the diverse experience for women, especially related to anxiety and obsessive-compulsive disorders, and the changes do not fully reflect current state of the research on perinatal psychiatric disorders

(O'Hara & Wisner, 2014; Sharma & Maziman, 2013). Hopefully future changes to the diagnostic criteria will include more substantial information on perinatal psychiatric conditions.

It must be noted that the current study was designed, and the survey was disseminated to participants, when the DSM-IV was still in use. There was one item on the survey where respondents were asked if they had been diagnosed with a mood disorder, depression, or anxiety (Patel, 2011; Patel & Wisner, 2011). This item is simplified and may not reflect the myriad of psychiatric disorders and conditions outlined in DSM-5. Lastly, it is a self-reported diagnosis, and it is likely that respondents had been given the diagnoses using DSM-IV criteria.

Postpartum depression is a wide spread women's health issue. Women from various cultures, ethnicities, and geographic locations are diagnosed with PPD and other psychiatric conditions during pregnancy and after childbirth, and the symptoms affect multiple domains of functioning (Leahy-Warren & McCarthy, 2007). Infant related stressors are unique to the experience of postpartum depression and anxiety. For example, symptoms of anxiety may be present but the worries, thoughts, or rumination may be geared toward the health and safety of the infant. The negative thoughts about the self associated with depression may be related to thoughts of being a "bad parent" or "inadequate parent." In the context of postpartum depression, the themes and content of these cognitions can be geared toward childrearing or parenting (Albright, 1993). Women are often reluctant to seek treatment and disclose that they are struggling for fear of being judged for these thoughts and feelings. It is important to understand risk factors for PPD, the impact on infant development, and have an understanding women's experience. These three areas are reviewed here to support the rationale for this study.

Overview and risk factors. Depression, anxiety, and other psychiatric conditions in the peripartum and postpartum period vary in their presentation, severity, and duration. The felt experience is unique for each individual, but the severity can range from what is coined “postpartum blues” to the more severe “postpartum psychosis” (Flynn, 2005). Postpartum psychosis is very rare (approximately 1-2 per 1,000 births), but there is a higher risk for infanticide (Albright, 1993; Flynn, 2005). Not every women will experience the same symptoms or will have those symptoms impact their lives in the same way. The symptoms commonly associated with peripartum psychiatric disorders include mood swings, irritability, anxiety, anger, and depression. These symptoms impact many areas of a mother’s life, including her family, her relationship with her child, and how she lives and cares for herself day-to-day. There is a great need to research and understand this phenomenon as this experience impact not only the mother, but the child as well (O’Hara, 2009). Beyond discrete symptoms, women experience psychosocial impairment in multiple domains of functioning. A new mother experiencing symptoms of depression and anxiety may isolate or may withdraw from supportive relationships (Albright, 1993). The symptoms impact functioning and can range in severity and duration, depending on the client and their unique circumstances.

The risk factors associated with PPD include having a pre-existing mood disorder, inadequate social support, life stressors, child stressors, and a non-supportive spousal relationship (Flynn, 2005). Through understanding these factors, physicians, clinicians, and new mothers can become more aware of the potential for symptoms to develop. A pre-existing mood disorder or family history of mental illness appears to be the number one risk factor for developing PPD. Inadequate social support and life stressors are risk factors for any mood disorder, and are not specific to PPD (Flynn, 2005). However, two risk factors that are unique to

PPD include child stressors and a non-supportive spousal relationship. These factors can also influence the medical decision-making process as mothers may not feel they have adequate social support around making the choice to seek treatment. Infant stressors, the change in the family system, increased responsibility, and decreased sleep associated with childrearing may make a mother vulnerable to developing PPD (Flynn, 2005). Knowledge of these risk factors is important and many clinicians discuss these with their patients. However, disseminating this information does not guarantee accurate diagnosing or engaging in treatment (Flynn, 2005). Understanding the risk factors is one of the first steps in assessing for the disorder, and it is important to know the risk factors to help mothers understand their experience and perhaps engage in treatment. If a mother feels supported and comfortable discussing risk factors with her healthcare providers, and the possibility that symptoms may emerge, she may be more likely to reach out for support.

Depression and mood deregulation during pregnancy are considered risk factors for the development of PPD, with a pre-existing mood disorder being the most strongly correlated factor (Albright, 1993; Horowitz et al., 2005). Additionally, lack of social support and familial support are risk factors as well. A strong social network can buffer the effects of postpartum depression and anxiety, as women perceive emotional, physical, and childcare support from those around her. Decreased social support and lower marital satisfaction were found to be correlated with symptoms of depression in one study, while women with strong social supports experienced more self-efficacy and confidence in their new role (Albright, 1993).

Clinicians and doctors should assess risk factors when symptoms are present to accurately diagnosis and plan for treatment. This can be particularly true for a mother who has experienced depression, or other psychiatric conditions, in the past. Early intervention for PPD

can help alleviate symptoms and increase psychosocial functioning. Factors such as social and marital support, life stress, and pre-existing mood disorders are among those most strongly correlated with the onset of PPD. Although demographic variables such as age, socioeconomic status, or educational status have not been deemed risk factors for PPD, they do indicate the presence of life-stressors which can contribute to PPD (Albright, 1993; Horowitz et al., 2005). Screening for risk factors can help new mothers and their providers begin the dialogue about PPD in hopes that treatment can be provided. The availability of resources, whether social or economic, has been implicated in the onset of PPD as these factors are related to stress levels. When the resources are available, women can more readily cope with their role change and the adjustment associated with child-rearing (Flynn, 2005, Horowitz et al., 2005).

Impact on infant development. Postpartum and peripartum depression and mood fluctuations significantly affect the mother, child, and her family. Symptoms of depression and anxiety can impact parenting behaviors, and a mother may experience increased preoccupation with the infant or intrusive thoughts about the child (APA, 2013). The changes in childrearing behaviors affect infants' emotional, physical, and cognitive development (Flynn, 2005). If a mother is experiencing severe symptoms, the parent-child relationship can be affected, there may be attachment disruptions, or symptoms can influence the bonding between the mother and child. Symptoms may change a mother's attunement, and mutual regulation affects infant development. Emotional and behavioral development happens in the context of the parent-child relationship, and can be influenced by a parent's emotional responsiveness (Flynn, 2005). A parent experiencing symptoms of depression may feel overwhelmed and be slower to respond to the child's needs. They have more trouble thinking flexibly, and may experience irritability in their interactions with the infant (Flynn, 2005). If the caregiver withdraws physically and emotionally,

cognitive and physical development of the infant may be impacted (Paris, Bolton, & Weinberg, 2009). Maternal anxiety and depression in the prenatal and postpartum periods have been associated with low birth weight, labor complications, and affects the overall health of the baby (Flynn, 2005; Wenzel, 2011). Given what is known about the effects on infant development and health, women's emotional health, and family functioning, it is important to understand how to help women engage in efficacious treatment.

There are many women who suffer from anxiety based disorders during the peripartum and postpartum period. Women experiencing severe symptoms of anxiety may be hypervigilant, experience extreme fear or nervousness, or feel helpless, which may impact their parenting behaviors. A mother experiencing high anxiety may have less confidence in her role as mother and doubt her parenting choices, which affect the maternal experience (Wenzel, 2011). Symptoms of anxiety including stress, worry, and rumination, can impact a mother's ability to adjust to her new role. Additionally, the physiological changes associated with anxiety can affect fetal development, which will impact behavioral and emotional development in children. Whether through biological mechanisms or psychological changes, anxiety, stress, and mood dysregulation affects child development and the mother-infant dyad (Wenzel, 2011). These symptoms can have a significant impact on the health and wellbeing of the mother, and can in turn, influence the parent-child relationship.

A mother with PPD is adjusting to her new role while simultaneously managing symptoms of depression, and she may find it more difficult to meet her child's needs. There are feelings of sadness, tearfulness, and guilt associated with depression that can lead to emotional and physical withdrawal (Jacob et al., 2010; Leahy-Warren & McCarthy, 2007). A new mother experiencing symptoms may begin to judge herself as a parent or worry extensively over the

safety of the baby, which may impact her parenting behaviors. Research has indicated that depressed caregivers may struggle to respond in a warm, empathic manner to the child, and they may communicate less with their children (Middleton, Scott, & Renk, 2009). Furthermore, depression can affect cognitive perceptions, especially towards the infant, and they may begin to perceive their children as more difficult (Albright, 1993; West & Newman, 2003). There are significant consequences if PPD goes untreated. It is difficult to determine causality between these variables, and the negative interaction cycles should be considered in their totality when discussing the effects of depression on child development. For example, studies may have correlated parental depression with negative behaviors in children, but many studies use self reports where the parent may be negatively appraising their child as a result of cognitive perceptions (Cummings & Davies, 1999). In essence, it is important to understand the impact of depression on family functioning, but difficult to discern causality between the variables.

This experience has implications for infant development, familial functioning, and the health of the mother (Albright, 1993; Battle & Zlotnick, 2005; Flynn, 2005). Taking on the role of parent is a significant life change, and some mothers judge themselves harshly, especially if experiencing symptoms of psychological distress. This can lead to a decreased sense of self efficacy and confidence in parenting skills, which can exacerbate symptoms of depression and anxiety (Horowitz et al., 2005). For these reasons, it is not only the mental health of the mother, but also the needs of the child that are affected by PPD. It is imperative to find meaningful ways to support women, reduce stigma associated with peripartum and postpartum depression and anxiety, and work to improve the health and wellness of mothers and their children. Women's experience of PPD can be devastating and, if untreated, can have long standing effects on the health and wellbeing of both the child and the mother (Leahy-Warren & McCarthy, 2007). A

child's emotional development and the mother-infant attachment can be affected, which in turn impacts child development (Jacob et al., 2010). This study investigated treatment decision making as a way to buffer against these effects of PPD through helping women seek support. It is important to understand the complexity of PPD and gain insight into what variables may lead to more successful outcomes for children and their families. As such, the current study sought to uncover women's perspectives on seeking treatment to mitigate these effects.

Impact on medical decision-making. Medical decision making is a complicated process that involves more than simply educating a client or patient about their options for treatment. Treatment options for managing PPD have been proven effective but many women are still underserved. Treatment options include individual and/or group psychotherapy, other psychosocial interventions such as support groups, and medication interventions, particularly antidepressants. Many women continue to be reluctant to engage in treatment, despite education from their provider on their options (McCarthy & McMahon, 2008). Research has indicated that there are many factors that promote help-seeking behaviors, which creates a more complex picture of the decision-making process. These factors include healthcare providers and their competency, knowledge of PPD, family and social support, previous experience with mental health professionals, pre-existing mental health issues or mood disorders, beliefs about mental illness, and treatment options. Furthermore, new mothers face stigma and are concerned with the impact of various treatments on the health of the baby (e.g., psychopharmacological medication while breastfeeding). The literature surrounding the use of medications in pregnancy varies depending on the type of medication being used. However, mothers are concerned with the impact the medications may have on fetal and infant development. Many women opt not to participate in this form of treatment due to the risk factors (Misri et al., 2013). Reviewing the

risks and benefits associated with treatment impacts their decision-making process and will impact a mother's decision to seek treatment (Flynn, 2005; Sit & Wisner, 2005).

Postpartum depression will affect multiple areas of functioning but, for the purposes of this study, its impact on decision making is highlighted here. PPD includes symptoms of irritability, sadness, hopelessness, lethargy, sleep disturbances, suicidal behavior, as well as problems with concentration, guilt, and worthlessness (Flynn, 2005). Many new mothers experience high levels of anxiety and panic symptoms as well (Albright, 1993). These symptoms affect not only family functioning, quality of life, and infant development, but also women's problem solving and decision-making capabilities (Sit & Wisner, 2005). Many women do seek help, but symptoms interfere with their ability to advocate for their needs, seek social support, or effectively ask others for help. It is particularly important for healthcare providers to engage in the assisted decision-making process for helping mothers seek treatment. Through getting a better perspective on the decision-making process while experiencing possible psychological distress, clinicians and practitioners can help mothers streamline the options for treatment (Sit & Wisner, 2005). For these reasons, the onus falls on the provider to understand the process and factors associated with decision making. This study compared the decision making styles of women who endorsed psychological stress, depression, or indicated a mood disorder, with those who denied these symptoms. This information helps to understand if the decision-making process, treatment preferences, or decisional conflict is different for women experiencing symptoms compared to those who have not.

Patients prefer different roles in the decision-making process depending on the healthcare decision being made, the information available, and the relationship they have with their provider. In general, past research has indicated that patients prefer providers to perform the

problem solving tasks associated with diagnosing and identifying appropriate treatment.

However, collaborative decision making increases self-efficacy, control, and responsibility for one's own care which can be valuable to a client's confidence (Deber et al., 1996; Sit & Wisner, 2005; Wisner et al., 2000). As discussed in the results section, findings from the current study showed that this sample of women preferred collaboration on diagnosing as well, with little deferment to relying solely on the doctor's direction. Furthermore, decisional conflict influences an individual's ability to make a decision. Patel & Wisner (2011) revealed that while women's decisional conflict was elevated, it was not high enough to interfere with their ability to make a decision. Other research has indicated that individuals with depression experience significant decisional conflict, which often thwarts the ability to make decisions (van Randenborgh, de Jong-Meyer & Hüffmeier, 2010). These factors have been uncovered in different patient populations and will be addressed in the context of the current study.

The "risk-benefit" model of treatment decision making focuses on the variables involved in identifying treatment modalities and, ultimately, making a decision (Wisner et al., 2000). The providers must be aware of the risks of untreated depression, as well as those associated with various treatments. For example, Wisner et al. examined the risk and benefits of treating depression during pregnancy. They identified several modalities that are similar to treatments available for PPD including psychotherapy, somatic therapy such as ECT and light therapy, and psychopharmacological interventions. However, each of these modalities has risks associated with them that must be weighed against the benefits before making a decision. The mother is not only considering the risks and benefits for herself, but also her child, and in this way examining PPD is different than other medical conditions. We must also consider that the decision to *not* seek treatment is valid in this context as well (Wisner et al., 2000). The treatment of PPD

becomes more complicated as it is not just the health of the mother, but also the child, that must be considered. Examining risks and benefits is not as straightforward as it seems. The risks associated with each modality are barriers to treatment for women. The risks associated with psychopharmacological interventions for a mother who is breast feeding may prohibit her from seeking this type of treatment. The literature on antidepressants and breastfeeding suggests that specific types of medications are less harmful than others, while literature on anxiolytic medications suggests that these have significantly adverse effects on infants. A mother must decide whether or not to engage in such interventions, and this varies depending on the symptoms, severity, and how they interact with daily functioning (Pearlstein, 2008). There are risks associated with any type of intervention, and these often delay or prevent a woman from gaining access to care. While psychotherapy may seem like a good alternative for breastfeeding mothers, there are still barriers to engaging in this type of treatment. The time constraints, cost, and stigma associated with psychotherapy may outweigh the benefit of engaging in this type of treatment. Through examining how women weigh the risks and benefits, we can help support individual women in the decision-making process. The risk-benefit model of decision making demonstrates the complexity of this treatment decision, and thus the need to understand the process addressed by this study.

It is also important to consider how psychological distress and depression may affect decision-making and cognitive processes. One study by Wisner et al. (2000) demonstrated that while mild and moderate levels of depression may not interfere with decision-making capabilities, severe depression can affect the capacity to make a choice. There is the chance that a patient's decision-making has been impacted in such circumstances, thus affecting their ability to appreciate the information being presented. A patient must be able to understand the situation,

options, consequences and outcomes associated with treatments, and make a choice. According to Wisner et al. severe depression can compromise these capabilities and delay decision making. Providers must be aware of the interaction between symptoms of depression and the ability to make a decision about treatment (Wisner et al., 2000). Through understanding the decision-making process thoroughly, a provider is more equipped to identify these circumstances and take the appropriate steps to ensure a patient is making an informed treatment choice. This study addressed the issue by comparing scores on the decision-making measures between the group of mothers who endorsed symptoms to those who did not to explore if there was a differences in preferences or decision-making characteristics.

Research Hypotheses

Information from the current study will help providers understand the medical decision-making process, and this is necessary given the number of mothers who actually engage in treatment. New mothers with PPD experience stress associated with increased responsibility and a decrease in emotional regulation skills, leaving them without the resources to manage their new role effectively. Participating in treatment for PPD can help them to be present as a mother, meet the needs of their infant, and engage in self-care (Sit & Wisner, 2005). There are multiple avenues for treatment including therapy and pharmacological interventions, but each has risks and benefits for new mothers (McCarthy & McMahon, 2008). This study explored treatment preferences, decisional conflict, and the problem-solving decision-making processes; it was hypothesized that, regardless of socioeconomic variables, women would:

- Prefer combined treatment options, including psychopharmacological and therapeutic interventions.

- Prefer a collaborative decision-making process with their provider when choosing their treatment, but defer problem solving (e.g., diagnosis) to their doctor.
- Would experience some level of decisional conflict in the postpartum period, which may or may not impact their decision-making process.

Furthermore, it was hypothesized that:

- There will be no difference between the decision-making process for women who have followed through with treatment, compared to others who have not.
 - Data will be collected from participants who have both endorsed and denied symptoms of psychological stress. It is hypothesized that there will be a higher level of decisional conflict for those participants who have endorsed symptoms of psychological stress.
- However, it is posited that other areas of decision making and treatment preferences will remain the same, regardless of symptoms.

The study included surveys and quantitative statistical analyses to determine if socio-demographic variables are associated with preferences and decision-making styles. These hypotheses will be explored through the questionnaire and proposed analytic strategies.

Methodology

The study is a quantitative investigation using a self-report survey aimed at examining medical decision making related to treatment for postpartum depression (Patel, 2011; Patel & Wisner, 2011). The three surveys distributed have been validated and their psychometric properties and are well established (Deber et al., 1996; Degner, Sloan, & Venkatesh, 1997; O'Conner, 1995). Patel and Wisner's 2011 study is outlined here to demonstrate the structure of the study. Patel and Wisner utilized the Ottawa Decision Support Framework (ODSF) and investigated decision-making conflict, problem solving, and treatment preferences. The ODSF is

a conceptual framework that is used to guide individuals through making health-related decisions. It is widely used for patients experiencing decisional conflict in relation to health decisions. The ODSF includes a needs assessment and supported decision-making, as well as investigating outcomes of the decisions made with providers (Patel & Wisner, 2011). A patient's first decision is whether or not to participate in treatment, and then move to examining the treatment options. Patients make these decisions with input from their medical providers and other educational resources, such as handouts or information from the internet. Some want to make these medical decisions independently, with family, or in collaboration with their providers. Others want a less active role and decide based on the provider's recommendations. This study examined decisional conflict, desired role in decision making, and treatment preferences to truly aid women in making these decisions. The study used Patel and Wisner's version of the 2011 survey along with more demographic questions about income level and sexual orientation (Patel, 2011; Patel & Wisner, 2011). The survey included the Decisional Conflict Scale, Control Preferences Scale, and the Problem Solving Decision Making Scale along with demographic questions (Patel, 2011; Patel & Wisner, 2011).

Measuring Decisional Conflict, Problem Solving, and Desired Control

Decisional conflict plays an important role in the process and this uncertainty can delay decision making as individuals struggle internally, reflecting on their values, and externally as they sift through the available information (O'Connor, 1995). The medical community has sought to reduce decisional conflict by educating patients and using decision aids. It is important to understand decisional conflict in regards to PPD because women are already using internal coping resources to manage their symptoms and their new role as a mother. There are factors that contribute to decisional conflict such as "...skills deficit in making or implementing decisions,

emotional distress, and perceived pressure from important others who are imposing their views” (O’Connor, 1995, p. 26). These are issues that women with PPD may already be struggling with, and thus understanding their decisional conflict becomes more important in helping them make decisions (Patel & Wisner, 2011).

Women’s role in decision making is examined to help providers understand their place in the process. Deber, Kraetschmer, and Irvine (1996) developed the widely used Problem-Solving Decision Making Scale to determine patient’s desire role in both tasks related to this process. Problem solving includes determining diagnoses, understanding risks and benefits, and identifying treatment options; decision making involves actually selecting the treatment. Problem solving and decision making are not mutually exclusive and cannot be separated easily, but it is important to examine both. Many patients wish to share decision making, but defer problem solving to the professionals because they rely on their expertise. This was found in Patel and Wisner’s (2011) study; most women wanted to defer problem solving to the provider while sharing the decision making. Importantly, very few women wanted to solely keep the responsibility of problem solving, indicating that they do value the input of the provider but some wanted to make the decision more independently. Women valued their autonomy in decision making while prizing the information provided by the professionals (Patel & Wisner, 2011). This information can help providers understand their role in the process. It was hypothesized that the results reflect the trend towards collaborative or independent decision making.

Lastly, the Control Preferences Scale helps to uncover the role women want. It determines whether or not an individual prefers an active, passive, or collaborative role with their provider. The results in Patel and Wisner’s (2011) study further indicated that women desired a

collaborative decision-making process. This knowledge is important to providers, but the collaborative role may be less desirable to different subset of women. The objective of this study was to determine if these themes are present when the variability of the sample is increased, which will help providers better serve their clients.

Patel and Wisner (2011) hoped that clinicians could understand what options to offer if they understood the decision-making process, including the decision to not seek treatment. The study revealed that the participants preferred collaborative decision making with direct contact with a medical professional. The study also revealed that they preferred combined treatment options, with both counseling and medication management. The high SES and educational status of the sample may have influenced variables that guided decision making. The sample in this study was more diverse as related to education status and SES. This study explored whether or not these demographic variables had an impact on treatment preferences, level of decisional conflict, or the desired role in decision-making.

Sample Description

Respondents were recruited using online mother's support groups and email distributions. A web based survey was distributed to participants (Patel, 2011; Patel & Wisner, 2011). Women who were over 18 years old with an infant between 0-36 months were included in the analyses; four surveys were excluded as the child was too far outside the age range resulting in a total of 31 participants. It should be noted some of the participants were still within the postpartum and perinatal timeframe, while other participants were answering these questions about their decision-making preferences while outside of this time period. No exclusions were made on the basis of race, ethnicity, sexual orientation, marital status, educational status, occupation, age, or income level. Participants did need to be able to read and write in English (Liberto, 2011). They

completed an internet survey which included: (a) the Decisional Conflict Scale, (b) Problem Solving Decision Making Scale, and (c) the Control Preferences Scale (Patel, 2011; Patel & Wisner, 2011).

Demographic information collected included: age, relationship status, yearly income, occupation, education level, race, ethnicity, and sexual orientation. The survey included questions asking if the participant has been diagnosed with postpartum depression or had experienced psychological stress, anxiety, or sadness, following birth. One item on the survey inquired about the participant's treatment preference, thus addressing the first research question (Patel, 2011; Patel & Wisner, 2011). No identifying information was collected and all responses were confidential.

The Decisional Conflict Scale

The Decisional Conflict Scale can reveal uncertainty about medical decisions, which can ultimately delay decision-making (O'Connor, 1995). This measure was included to answer the following question: What is the level of decisional conflict for these new mothers? The scale has been used to aid in decision making for medical or health related decisions. It has been found valid and reliable to understand a person's decisional conflict in relation to healthcare. The DCS contains scales related to uncertainty about the decision, effective decision-making, and factors contributing to uncertainty (O'Connor, 1995). The DCS assesses how women feel about the level of information they have regarding their options (O'Conner, 2005). It is a 16-item measure with a Likert scale ranging from 0-4 for each item. The internal consistency of the DCS ranges from 0.78 to 0.92 and the test-retest coefficient was reported to be 0.81. The scores on the DCS can range from 0 to 100 (e.g., no conflict to high conflict). Scores above 37.5 indicate high uncertainty about the decision, and are associated with delayed decision making (O'Connor,

1993; Patel & Wisner, 2011). Scores lower than 25 are associated with making a decision and indicate low decisional conflict (O'Connor, 1993; Patel & Wisner, 2011). The scale can discriminate between those women who have low decisional conflict, and are prepared to make a choice and those with high conflict who may delay their decision making. The items correlated with particular constructs such as knowledge informing the decision, regret towards choice, and discontinuing treatment following a decision (O'Connor, 1993).

The Problem-Solving Decision Making Scale

The Problem-Solving Decision Making Scale is a second validated measure aimed at assessing problem solving and decision making variables, including the amount of information desired and the level of involvement in the decision. This measure was included to determine how active women would like to be in the decision-making process, and who should have the most control in the problem-solving process. Information from this scale will address the following research question: what role do women want in making the treatment decision? The measure assesses for how active, or passive, women would like to be in regards to problems solving tasks such as determining diagnosis, treatment options, and examining risks and benefits related to treatment. It will uncover their desired role in the actual decision making as well, and who will make the ultimate decision (e.g., the practitioner, the patient, or collaborative approach; Deber et al., 1996). The PSDM scale includes 6 items, each scored on a 0-5 Likert scale. The first 4 items are aimed at assessing the participants' problem solving regarding treatment, and the last 2 items are geared to medical decision making (Deber et al., 1996). The respondents are given a medical scenario and are asked to indicate "...who should determine/decide" (Patel & Wisner, 2011, p. 591) based on a 5-point Likert scale. The vignette or medical scenario for this particular study will be: "You are pregnant or have already given birth and you have been feeling

sad and down lately. You decide to visit your doctor about this” (Patel & Wisner, 2011, p. 591). They would then choose from the following items: “(1) Doctor alone; (2) Mostly the doctor; (3) Both equally; (4) Mostly me; (5) Me alone” (Patel & Wisner, 2011, p. 591). The reliability of the PSDM scale and subscales are as follows: full scale shown to be Chronbach’s $\alpha = .71 - .90$, problem solving only Chronbach’s α shown to be $.79 - .90$, and decision making only Chronbach’s α shown to be $.67 - .93$ (Patel & Wisner, 2011). The mean scores are calculated for each task involved in problem solving and each task in decision making. Scores less than 3 indicate that the women want to defer responsibility to the doctor, scores ranging from 3 to 3.99 indicate shared problem solving and decision making, and scores over 4 indicate that the patient wishes to problem solve and decide independently (Patel & Wisner, 2011).

The Control Preferences Scale

The Control Preferences Scale is a measure designed to assess preference for the amount of control in decision making for medical treatment. Given the variety of treatments available to consumers, the scale was developed to understand the patient’s preference for control in medical decision making. This scale will also address the research question regarding the role women prefer in making the treatment decision through understanding the level of control they want in the process. The CPS has been used in medical research for decades, and has been demonstrated as a reliable and valid measure of this construct (Degner et al., 1997). As the CPS developed from grounded theory, criterion validity was established through defining the construct and using unfolding analysis to establish validity. Reliability has been demonstrated through repeated studies with cancer patients (Degner et al., 1997). The CPS is a 5-item scale whereby participants choose the statement that most closely relates to their preferred role in decision making. The responses can indicate an active, passive, or collaborative role in decision making with their

provider (Patel & Wisner, 2011). There has been some investigation into how patients' preference for control varies depending on demographic characteristics such as age, gender, or type of medical issue (e.g., cancer; Singh et al., 2010). This is important for the purposes of this study as women's preferences may vary depending on their symptoms, age, marital status, or other variables. The CPS can uncover the amount of control they wish to have in the decision.

Data Analyses

Data reported includes means and standard deviations to relay information about responses on each measure, as well as other descriptive statistics regarding demographics, socioeconomic status, and race/ethnicity. These analyses determined treatment preferences, the average level of decisional conflict, amount of desired control, and the level of involvement mothers would like related to problem solving and decision making. Two-tailed T-tests were used to determine if there were clinically significant differences in decision-making characteristics between groups of participants who endorsed psychological stress and anxiety, and those who had not (Patel & Wisner, 2011; Robson, 2002). T-tests were used to determine if there were differences in decision-making processes for groups of women who reported they had been diagnosed with a mood disorder following birth versus those who had not. T-tests were also used to compare the mothers who had made a treatment decision to those who had not to determine if there were significant differences related to (a) their level decisional conflict, (b) their desired control in decision making, and (c) tasks related to problem solving and decision making. T-tests were also performed to determine if there were differences related to mothers who had household incomes above \$65,000 to those below \$65,000 related to their decision-making processes. T-tests were performed to determine if there were differences between mothers who had attained a college degree and those who had not, and their scores on

the treatment decision-making measures. Analyses also included t-tests to determine if there were differences in decisional conflict levels for women who had made a decision regarding treatment and those who had not yet made a decision. Finally, analyses also included comparing average problem solving scores to average decision-making scores to determine if there was a clinically significant difference in the level of control women desired when examining problem solving and decision making separately.

Results

The results of the study presented here includes a description of sample and general demographic information, including age, race, marital status, parental status (e.g., age of child), educational level, and income level. The analyses of each measure administered will be described, including results from the Control Preferences Scale, the Problem Solving Decision Making Scale, and the Decisional Conflict Scale. The analyses will address the research questions, and including: (a) What are women's treatment preferences for symptoms of depression or anxiety during the postpartum period? (b) What is the level of decisional conflict for these new mothers? and (c) What role do women want in making the treatment decision? Further analyses were conducted to determine if the presence of psychological stress or depression or income level affected the scores on each measure and are described for each individual measure.

Demographic Information

The survey was distributed to women in New Hampshire through social media, email distribution, and in collaboration with women's groups such as La Leche League and local chapters for mother's online support groups, resulting in a total of 35 surveys obtained. Four surveys were not included in the statistical analyses due to the child being too far outside the age

range resulting in a total of 31 respondents ($N= 31$.) Respondents ranged from age 20 years old to 42 years old. The post-partum periods ranged from 6 weeks to 3 years-old. All surveys with a child under 3 years old were included in the analyses. Demographic information collected included age, marital status, employment status, race, ethnicity, sexual orientation, and yearly family income.

Table 1.

Marital Status (N=31)

<u>Marital Status</u>	<u>Number</u>	<u>%</u>
Married	26	80.08
Living with Parter	5	16.12
Single	0	0
Divorced	0	0

Table 2.

Age (N=31)

<u>Age Range</u>	<u>Number</u>	<u>%</u>
20-25	3	9.68
26-30	12	38.71
31-35	10	32.26
36-40	4	12.90
41-45	1	3.1

Table 3.

Education Status (N=31)

<u>Highest Grade Level Achieved</u>	<u>Number</u>	<u>%</u>
High School Diploma	4	12.90
Trade/Technical Certificate or Diploma	3	9.68
Some College	2	6.45
College Degree	11	35.48
Graduate School	11	35.48

Table 4.

Race and Ethnicity (N=31)

	<u>Number</u>	<u>%</u>
Hispanic	2	6.45
Non-Hispanic	29	93.55
White	29	93.55
Black	1	3.23
Asian/Pacific Islander	1	3.23

Table 5.

Sexual Orientation (N=31)

	<u>Number</u>	<u>%</u>
Gay/Lesbian	0	0
Bisexual	1	3.23
Transsexual	0	0
Heterosexual	29	93.55
Asexual	1	3.23

Table 6.

Employment Status (N=31)

	<u>Number</u>	<u>%</u>
Employed	22	70.97
Military	0	0
Student	0	0
Homemaker	9	20.03
Out of work and looking for work	0	0
Out of work and not looking for work	0	0
Retired	0	0

Table 7.

Household Yearly Income (N=31)

<u>Income range</u>	<u>Number</u>	<u>%</u>
Below \$10,000	0	0
\$10,000-\$25,000	0	0
\$25,000-\$35,000	2	6.67
\$35,000-\$45,000	3	10
\$45,000-\$60,000	5	16.67
\$60,000-\$75,000	1	3.33
\$75,000-\$100,000	6	20
\$100,000-\$150,000	11	36.67
\$150,000 +	2	6.67

Participants were asked a series of questions aimed at assessing for the presence of psychological stress following childbirth, as well as a diagnosis of a mood disorder. Participants were also asked if they had actually made a decision regarding participating in treatment (Patel, 2011; Patel & Wisner, 2011). Respondents were asked to indicate if they had experienced sadness or depression following birth; 51.61% of participants endorsed they had symptoms of sadness. In reference to psychological stress and anxiety, 61.29% indicated they had these symptoms. While postpartum mood disorders affect 7%-20% of mothers in the United States (Mayberry et al., 2007; O'Hara & Wisner, 2014; Stuart & Koleva, 2014; Wisner et al., 2000), 29.03% of new mothers in this sample indicated they had been diagnosed with a mood disorder

following birth. In response to the question about making a treatment decision, 54.84% indicated they had made a decision regarding treatment.

Research Questions and Hypotheses

Preferred treatment options and treatment preferences. The first research questions aimed to uncover which treatment options new mothers preferred for managing mood or stress in the postpartum period. It was hypothesized that women would prefer combined treatment options including both medication and therapy, based on previous research (Patel & Wisner, 2011). Respondents were asked to select their preferred method of treatment from five possible choices including medication only, therapy only, combination of medication and therapy, no treatment, or unsure. The option for no treatment was important as some women may not opt to proceed with treatment for managing stress, anxiety, or sadness. Results indicated 29.03% preferred combined treatment options, 29.03% preferred therapy only, 6.45% preferred medication only, 12.9% opted for no treatment, and 19.35% indicated they were unsure about their preference. 64.51% of the respondents selected some form of treatment option while only 12.9% opted for no treatment, while 19.35% of respondents were still undecided. The majority of participants indicated a preference for some type of intervention. Women were more likely to choose to participate in treatment versus opting for no treatment. Women in this sample indicated therapy only and combined treatment options were most preferred, and medication only was the least preferred treatment option. Results from this study indicated more women preferred no treatment over the medication only treatment option. It should be noted this is reflective of the participant's preference and may not be the treatment they actually participated in. Overall, most women selected some treatment option and intervention with the majority selecting a combination of medication and therapy.

Decisional conflict. The second research question asked about the level of decisional conflict for new mothers contemplating this treatment decision. Decisional conflict has been associated with delays in decision making in regards to healthcare decisions. High decisional conflict may impact the decision-making process and delay participation in treatment (O’Conner, 2005). It was hypothesized there may be some level of decisional conflict involved with this process. The Decisional Conflict Scale (DCS) looks to uncover any uncertainty in making a decision which can delay the decision-making process (O’Conner, 2005). Two-tailed T-tests were performed to determine if the group of women who made a decision (versus those who had not) had different levels of decisional conflict. T-tests were also performed to determine if there were differences in decisional conflict between (a) the group of mothers who endorsed psychological stress compared to those who did not, (b) the group of mothers who endorsed sadness compared to those who had not, and (c) the group of mothers who reported a diagnosis of a mood disorder versus those who had not. Responses on the DCS can range from low decisional conflict to high decisional conflict, and respondents with high decisional conflict often delay the decision making (O’Conner, 2005). Overall, 51.16% of respondents had a low decisional conflict score, 29.03% revealed a high decisional conflict score, and 19.35% achieved a moderate score. The total average score indicated relatively low decisional conflict in this sample of new mothers (Mean= 26.84; SD= 22.04).

Notably, there was a statistically significant difference in the level of decisional conflict between the group of women who had made a decision compared those who had not (see Table 8). Women who had yet to make a decision had significantly higher levels of decisional conflict scores (Mean= 41.51; SD= 19.43) than women who had made a decision regarding treatment (Mean= 14.71, SD=16.05). Those who had yet to make a decision had an average score in the

high-conflict range, which is associated with delayed decision making (O’Conner, 2005).

Statistically significant differences were also found between the respondents who endorsed a mood disorder versus those who had not. The respondents who endorsed a diagnosis had lower decisional conflict scores than those respondents who did not (see Table 8).

Table 8.

Results of Two-Tailed T-test Comparing Average scores on the Decisional Conflict Scale

Variable	Endorsed Yes		<u>Groups</u> Endorsed No		N	df	T	Sig
	<u>Mean</u>	<u>SD</u>	<u>Mean</u>	<u>SD</u>				
Anxiety/Stress	27.80	25.08	25.33	17.07	31	29	0.33	ns
Sadness/Depression	20.41	23.64	33.70	18.56	31	28	-1.75	ns
Mood Disorder Diagnosis	15.45	15.73	31.50	22.83	31	22	-2.25	*0.035
Made Decision Regarding Treatment	14.71	16.05	41.57	19.43	31	25	-4.14	*.0003

*Note. * $p < .05$*

Groups of respondents endorsed the presence or absence of the variables, as well as whether or not they had made a decision regarding treatment.

Results from the analyses did reveal significantly higher DCS scores for those respondents who had yet to make a decision regarding treatment. This addresses the research question about whether or not the presence of decisional conflict would impact the decision-making process and results from these analyses indicate higher decisional conflict may be associated with a delay in decision making. New mothers who experience moderate to high levels of decisional conflict may delay decision making regarding treatment for depression or anxiety. Furthermore, analyses revealed statistically significant differences in decisional conflict for women who had made a decision as compared to the overall average, and a statistically significant higher DCS score for those had not made a decision when compared to the overall average.

Results from two-tailed and one-tailed t-tests did not reveal any statistically significant differences in decisional conflict scores between the group who endorsed psychological stress,

anxiety, or depression and those who did not. No difference was found related to income level or education status. Results could indicate the decision-making process is similar regardless of the presence of psychological stress, or these results could be because of the small sample size in this study. It would be important to investigate this area in future studies with more respondents to support these findings.

Table 9.

Household Yearly Income Level and Decisional Conflict

	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Df</u>	<u>T</u>	<u>Sig</u>
Respondents Endorsed < \$60, 000	24.45	17.20	10	25	-0.50	ns
Respondents Endorsed > \$60, 000	28.36	24.88	20			

Note. * $p < .05$

Table 10.

Education Status and Decisional Conflict

	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Df</u>	<u>T</u>	<u>Sig</u>
Respondents without a college degree	37.85	26.51	9	11	-1.60	ns
Respondents with a college degree	22.34	18.79	22			

Note. * $p < .05$

The Decisional Conflict Scale has subscales associated with various aspects of decision making and included: the informed subscale, values clarity subscale, support subscale, uncertainty subscale, and effective decision subscale (O'Connor, 1993). Two-tailed t-test were used to determine if there was a difference between groups of women who endorsed psychological symptoms and those who did not, and their scores on each subscale, as well as between the groups of women who had made a decision regarding treatment. Statistically significant results were found on the "informed" subscale which assessed a women's perception of how much information she has regarding her decision. Women who had a self-reported diagnosis reported low scores which meant they felt they had more information, knew more about the benefits, and knew about the risks and side effects. Furthermore, women who had made a decision regarding treatment also had statistically significant lower scores indicating they felt more informed (see Table 11). Results from the "values clarity" subscale also revealed statistically significant results in that women who self-endorsed a diagnosis had lower scores indicating greater clarity around their values about the decision. Similarly, those who endorsed symptoms of sadness or depression had statistically significant lower scores on values clarity. Finally, those women who had made a decision about their treatment also showed statistically

significant lower scores, indicating they were clearer about what they valued and what mattered to them about this decision (see Table 12; O'Connor, 1993). The scores on the “support” subscale revealed one statistically significant result related to women who had made the decision. They endorsed lower scores indicating they perceived enough social support and advice regarding their decision (see Table 13; O'Connor, 1993). In the area of “uncertainty” there was a statistically significant difference found between the group of women who had made the treatment decision and they showed scores reflective of a higher degree of certainty regarding their decision (see Table 14; O'Connor, 1993). Lastly, a similar result was found on the “effective decision” subscale which reflects satisfaction with the decision and participants feeling like they made an informed choice. Women who had made a decision had scores reflective of higher levels of effective decision making (see Table 15; O'Connor, 1993).

Table 11.

*Results of Two-tailed T-test Comparing Average scores on the Decisional Conflict Scale:
Informed Subscale*

Variable	<u>Groups</u>								
	Endorsed Yes			Endorsed No					
	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>df</u>	<u>T</u>	<u>Sig</u>
Anxiety/Stress	29.82	32.07	19	34.03	22.88	12	28	-0.43	ns
Sadness/Depression	21.35	26.52	16	39.44	29.46	15	28	-1.79	ns
Mood Disorder Diagnosis	12.04	13.25	9	38.64	29.61	22	29	-3.45	*0.00086
Made Decision Regarding Treatment	13.24	17.69	17	53.57	23.05	14	25	-5.37	*1.62 ⁻⁰⁵

*Note. * $p < .05$*

Groups of respondents endorsed the presence of absence of the variables, as well as whether or not they had made a decision regarding treatment.

Table 12.

Results of Two-Tailed T-test Comparing Average scores on the Decisional Conflict Scale: Values Clarity Subscale

Variable	<u>Groups</u>								
	Endorsed Yes			Endorsed No					
	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>df</u>	<u>T</u>	<u>Sig</u>
Anxiety/Stress	23.25	27.72	19	27.78	19.25	12	29	-0.54	ns
Sadness/Depression	13.54	21.27	16	39.44	37.22	15	29	-3.03	*0.0052
Mood Disorder Diagnosis	8.33	12.5	9	31.82	25.15	22	28	-3.46	*0.0012
Made Decision Regarding Treatment	9.31	13.14	17	42.26	22.04	14	20	-4.92	*8.26 ⁻⁰⁵

*Note. * $p < .05$*

Groups of respondents endorsed the presence of absence of the variables, as well as whether or not they had made a decision regarding treatment.

Table 13.

Results of Two-Tailed T-test Comparing Average scores on the Decisional Conflict Scale:
Support Subscale

Variable	<u>Groups</u>								
	Endorsed Yes			Endorsed No					
	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>df</u>	<u>T</u>	<u>Sig</u>
Anxiety/Stress	25.44	21.95	19	27.78	19.29	12	26	0.71	ns
Sadness/Depression	19.27	22.71	16	27.78	18.28	15	28	-1.15	ns
Mood Disorder Diagnosis	18.52	20.74	9	25.38	20.97	22	15	-0.83	ns
Made Decision Regarding Treatment	16.18	19.2	17	32.14	19.84274	14	27	-2.26	*0.032

*Note. * $p < .05$*

Groups of respondents endorsed the presence of absence of the variables, as well as whether or not they had made a decision regarding treatment.

Table 14.

*Results of Two-Tailed T-test Comparing Average scores on the Decisional Conflict Scale:
Uncertainty Subscale*

Variable	<u>Groups</u>								
	Endorsed Yes			Endorsed No					
	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>df</u>	<u>T</u>	<u>Sig</u>
Anxiety/Stress	32.90	28.26	19	27.79	18.58	12	29	0.61	ns
Sadness/Depression	28.65	28.70	16	33.33	20.41	15	27	-0.53	ns
Mood Disorder Diagnosis	23.15	25.95	9	34.09	22.86	22	14	-1.09	ns
Made Decision Regarding Treatment	20.10	21.86	17	44.05	22.03	14	28	-3.02	*0.00531

*Note. * $p < .05$*

Groups of respondents endorsed the presence of absence of the variables, as well as whether or not they had made a decision regarding treatment.

Table 15.

Results of Two-Tailed T-test Comparing Average scores on the Decisional Conflict Scale: Effective Decision Subscale

Variable	<u>Groups</u>								
	Endorsed Yes			Endorsed No					
	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>df</u>	<u>T</u>	<u>Sig</u>
Anxiety/Stress	26.97	27.33	19	21.88	19.67	12	28	0.60	Ns
Sadness/Depression	19.53	27.85	16	30.83	19.40	15	27	-1.32	Ns
Mood Disorder Diagnosis	15.28	19.29	9	28.98	25.56	22	20	-1.63	Ns
Made Decision Regarding Treatment	13.60	17.01	17	38.84	25.38	14	22	-3.18	*0.0043

*Note. * $p < .05$*

Groups of respondents endorsed the presence of absence of the variables, as well as whether or not they had made a decision regarding treatment.

Role in decision making. The third research question posited, “What role do women want in making this treatment decision?” This question was addressed by two measures, the Control Preferences Scale (CPS) and the Problem Solving Decision Making Scale (PSDM). The role in the decision-making process may be active, collaborative or passive as measured by the CPS. Patients make healthcare decisions in collaboration with medical providers, but the level of responsibility changes depending on the healthcare decision and the patients’ personal preference related to their role in the process (Degner et al., 1997). The results from the PSDM helped answer this research question by investigating who should be responsible for certain tasks involved in making healthcare choices. Individuals vary in how much responsibility they wish to

retain and defer in reference to problem solving (e.g., diagnosing, determining treatment options) and decision making (Deber et al., 1996). Results from these two measures aid in understanding the desired role and level of control new mothers desire in making a decision to seek treatment. Two-tailed T-tests were performed to determine if there were differences in desired control (CPS scores and PSDM scores) for (a) the group of mothers who endorsed psychological stress compared to those who did not, (b) the group of mothers who endorsed sadness compared to those who had not, and (c) group of mothers who reported a diagnosis of a mood disorder versus those who had not.

The Control Preferences Scale. The Control Preferences Scale (CPS) was used to determine how much control respondents would prefer in the decision-making process for treatment (Degner et al., 1997). Question responses indicated whether respondents wanted retain control of decision making (active), share control with the medical provider (active shared), share control equally (collaborative), have the doctor make the decision with input from the consumer (passive shared), or confer control the medical provider (passive). None of the respondents selected to defer decision-making responsibilities to providers. All women sampled preferred to retain or share control related to this healthcare decision, rather than defer to the professional. Results revealed women indicated they wanted to retain decision making and consider input from their doctor (Mean= 2.23, SD= .67).

Table 16.

Overall Distribution of Preferred Role Measured by the Control Preferences Scale

<u>Preferred Role</u>	<u>%</u>
Active	12.90
Active Shared	51.61
Collaborative	35.48
Passive Shared	0
Passive	0

Two-tailed and one-tailed t-tests were performed to determine if the presence of stress and anxiety, depression, or a mood disorder impacted the level of desired control as measured by the CPS. The analyses were performed to determine if there was a statistically significant difference between the average CPS scores for women who endorsed psychological stress or anxiety, sadness or depression, or stated they had been diagnosed with a mood disorder, and those who had not. Additionally, a two-tailed t-test was performed to determine if there was a statistically significant difference on the CPS scores for women who had made a decision regarding treatment versus those who had not. Results from these analysis did not reach statistical significance indicating there were no differences in the mean scores on the CPS for women who endorsed psychological stress or sadness, or indicated the presence of a mood disorder. These results may be impacted by the small sample size with low statistical power; however, in this sample, the presence of psychological stress did not impact the scores on the CPS indicating level of control women preferred related to this healthcare decision. Furthermore, no statistical difference was found between the average scores on the CPS for the mother's

whose household income was above or below \$60,000; the results on the CPS did not vary by income level. Finally, there were no differences found related to education status.

Table 17.

Results of Two-Tailed T-test Comparing Average scores on the Control Preferences Scale between groups of respondents

Variable	<u>Groups</u>							
	Endorsed Yes		Endorsed No					
	<u>Mean</u>	<u>SD</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>df</u>	<u>T</u>	<u>Sig</u>
Anxiety/Stress	2.29	0.66	2.1	0.74	31	16	0.68	ns
Sadness/Depression	2.13	0.72	2.33	0.62	31	29	-0.86	ns
Mood Disorder Diagnosis	2.33	.50	2.18	0.73	31	22	0.66	ns
Made Decision Regarding Treatment	2.24	0.75	2.21	0.58	31	29	0.09	ns

*Note. * $p < .05$*

Groups of respondents endorsed the presence of absence of the variables, as well as whether or not they had made a decision regarding treatment.

Table 18.

Household Yearly Income Level and Control Preferences Scale Score

	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Df</u>	<u>T</u>	<u>Sig</u>
Respondents Endorsed < \$60, 000	2.3	0.48	10	26	0.44	Ns
Respondents Endorsed > \$60, 000	2.2	0.77	20			

Note. * $p < .05$

Table 19.

Education Status and Control Preferences Scale

	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Df</u>	<u>T</u>	<u>Sig</u>
Respondents without a college degree	2.44	0.53	9	20	-1.33	Ns
Respondents with a college degree	2.14	0.71	22			

Note. * $p < .05$

The Problem-Solving Decision Making Scale. The Problem Solving Decision Making Scale (PSDM scale) is aimed at uncovering variables involved in problem solving and decision making. Questions assess how active participants would like to be in the decision-making process, as well as the level of desired control on different tasks related to decision making (Deber et al., 1996). Results on this measure are used to determine if women would like an active, collaborative, or more passive role in the decision-making process. Respondents are asked their preference for the level of input they, and their doctor, have related to diagnosing a condition, determining what treatment options are available, determining risks and benefits, and the likelihood they will occur, and the acceptability of these risks and benefits (Deber et al., 1996). Analyses on this measure included two-tailed t-tests to determine if there was a significant difference on average scores between groups of women who indicated psychological stress and the presence of a mood disorder.

Table. 20

Overall results and distribution on the Problem Solving Decision Making Scale N(%)

	Person Responsible		Task Responsibility			
	Diagnosis	Determine treatment options	Determine risks and benefits	Determine likelihood of risks and benefits	Determine acceptability of Risks and Benefits	Make Decision
Doctor						
Alone	3 (9.67)	2 (6.45)	3 (9.67)	5 (16.13)	1 (3.23)	1 (3.23)
Mostly the						
Doctor	7 (22.58)	12 (38.71)	10 (32.26)	14 (45.16)	0	1 (3.23)
Both						
Equally	15 (48.39)	13 (41.94)	15 (48.39)	12 (38.71)	13 (41.94)	10 (32.26)
Mostly Me	6 (19.35)	4 (12.9)	3 (9.67)	0	13 (41.94)	11 (35.48)
Me Alone	0	0	0	0	4 (12.9)	8 (25.81)

Two-tailed and one-tailed t-tests were performed to determine if the presence of stress and anxiety, depression, or a mood disorder impacted problem solving and decision-making tasks. No statistical difference was found between the groups of women who endorsed psychological stress or sadness, and their selection on PSDM items. Psychological stress, anxiety, or depression did not appear to influence the problem-solving/decision making scores on the PSDM in this sample. There was no difference in the scores between those who endorsed psychological stress or depression, and those who did not on the PSDM. Overall, average responses from this sample of women wanted to retain decision-making responsibility and share problem solving responsibility with their healthcare provider.

Table 21.

Results of Two-Tailed T-test Comparing Average scores on the Problem Solving Decision Making Scale

Variable	Groups							
	Endorsed Yes		Endorsed No					
	Mean	SD	Mean	SD	N	df	T	Sig
Anxiety/Stress	2.84	.60	3.06	.46	27	20	-1.02	ns
Sadness/Depression	2.87	.53	3.10	.42	27	23	-1.23	ns
Mood Disorder Diagnosis	2.87	.67	2.94	.51	27	13	-.25	ns
Made Decision Regarding Treatment	3.01	.58	2.76	.50	27	24	1.26	ns

*Note. * $p < .05$*

Groups of respondents endorsed the presence of absence of the variables, as well as whether or not they had made a decision regarding treatment.

The overall average indicated women preferred collaboration related to problem solving and decision making (Mean= 2.93, SD= .54). However, when responses on the problem solving items and decision making items were analyzed separately, the average scores varied significantly. In the area of diagnosing, respondents indicated that they preferred collaborative decision making with their healthcare provider (Mean=2.52, SD=.57). In the area of actual decision making, respondents indicated they wanted to retain more control in the process (Mean=3.69, SD=.74). The results of a two-tailed T test revealed average scores on the decision-making tasks were significantly higher than those on the problem solving tasks (see Table 22). Furthermore, the analyses revealed a statistically significant difference between the average decision-making scores and the overall PSDM average, as well as between the average problem solving score and the overall PSDM average. Women desired shared responsibility or

collaborative process in problem solving related to mental health diagnosis and treatment but preferred to retain responsibility related to making the actual decision.

Table 22.

Results of Two-Tailed T-test Comparing Problem Solving Scores to Decision-making Scores

<u>Tasks</u>							
Problem Solving				Decision Making			
<u>Mean</u>	<u>SD</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Df</u>	<u>T</u>	<u>Sig</u>
2.52	.57	3.69	.74	31	56	-6.88	*5.34 ⁻⁰⁹

*Note. * $p < .05$*

Discussion

Medical decision making has been an area of interest for the medical community to determine how involved patients would like to be in regards to making healthcare decisions. Patients appear to prefer collaborative processes where there is shared responsibility between patient and provider when it comes to making healthcare decisions. Patients are informed consumers and while most value input from their medical provider, it appears there is some desired level of control when making a healthcare choice. Women who have recently given birth are often faced with making a healthcare decision about whether or not to seek treatment for psychological stress, anxiety, or depression. Women in the postpartum period are faced with multiple stressors as they transition into motherhood and many experience signs and symptoms of depression or anxiety. The current research study investigated how new mothers approach this healthcare decision and sought to understand different characteristics of decision making including level of control, decisional conflict, and preferences. The strengths and limitations of the study will be outlined, as well as suggestions for further research.

Strengths and Limitations of the Study

Strengths. The current study involved a quantitative investigation of the decision-making process utilizing measures that have been shown to be valid and reliable tools for understanding healthcare decisions. The measures selected examined the level of desired control as well as examining the level of decisional conflict for new mothers. The Control Preferences Scale has been shown to be valid and reliable, particularly with cancer patients, but has also been used for understanding a variety of healthcare decisions (Degner et al., 1997). The Problem-Solving Decision Making Scale is another valid and reliable tool used to understand different tasks in making healthcare decisions (Deber et al., 1996). Finally, the Decisional Conflict Scale has been used widely in the medical community to understand how decisional conflict can delay and impact medical decisions, which ultimately can affect prognosis (O'Connor, 1995). The use of reliable and valid measures widely used in the medical community is one strength of the current study, as the results can be determined to reflect medical decision-making processes. The current study also uses quantitative measures meaning its methodology can be replicated with different populations or at different times to determine if trends change (Patel, 2011; Patel & Wisner, 2011). Women's preference and decision-making styles may change as more research or awareness of postpartum mood disorders is made available. Furthermore, the study can be replicated with other subsets of parents, such as teenage mothers or single parents, to determine if the findings are applicable to these families.

Limitations and areas for further research. Psychological research and recruiting participants is challenging. The participants in this study were recruited through social media, local women's support groups, and in collaboration with community providers working with new mothers. Unfortunately, distribution and recruitments yielded only 35 responses and the small

sample size is a significant limitation of this study. The statistical analyses did not detect significant differences between subsets of respondents but this could be a result of the small sample size. It is difficult to conclude with certainty that no difference exists between the groups based on this study. However, although the sample was small, the trends detected were similar to previous research studies in reference to treatment preference and desired role in the process. Although some analyses may have not yielded significant results, some results and conclusions can be drawn from examining the overall average scores, trends, and demographic information.

One goal of the current study was to address the lack of diversity in psychological research, specifically in the area of postpartum depression. There was more socioeconomic diversity in this sample, but unfortunately there was little ethnic and racial diversity in this study. The sample was also homogenous in terms of marital status and sexual orientation. While there was some greater diversity in educational status and socioeconomic status in the current study, it would be beneficial to include a wider variety of new mothers in future research. Other areas of research could be related to single mothers, teenage mothers, or mothers living below the poverty line. There is always a need to expand psychological research findings and although this study addressed one part of the diversity concern, more research is warranted to increase generalizability of the findings.

There were some limits to the study in that not enough data was collected to answer some of the research questions or address certain hypotheses. For example, it could not be determined if there was a difference between groups of participants who completed treatment versus those who had not, and their decision-making process. Further research could address this question to determine if there is some correlation between the participants' medical decision-making styles and follow through with treatment.

Understanding the Treatment Decision-making Process

Decisional conflict. Medical decision making related to mental health treatment appears to be a fairly complex process with multiple variables impacting the process. This study aimed to develop a greater understanding of variables which may impact decision making, including psychological distress, the presence of a mood disorder, income level, or educational status. Although the sample size was small, there were significant differences found related to some of these variables, particularly related to decisional conflict. Postpartum depression and anxiety can impact family functioning and infant development (Feldman et al., 2009). In order to support mothers' psychological health, it is important to recognize these difficulties early on and intervene if this is what the new mother wishes. Decisional conflict or feeling confused about the medical treatment options can delay participation in treatment (O'Connor, 1995). The results from this study indicate these mothers experienced a relatively low level of decisional conflict, which is promising. However, results did indicate, and affirm, that high levels of decisional conflict impact decision making and can delay a women's decision whether or not to seek treatment. This information is valuable to providers as it indicates a need to support women early on in the process and provide information and support on their options. If a new mother is experiencing depression or anxiety and delays the decision making, there may be a greater chance of impact on family functioning and infant development. Although these results are to be expected, it is notable as a delay in seeking support for depression or anxiety can have adverse effects on the mother's health, infant development, and family functioning. Results from this study further support the need to help the decision-making process to reduce the likelihood of a delay in treatment decision-making (Feldman et al., 2009; O'Connor, 1995).

One particularly interesting result was found related to the presence of a diagnosed mood disorder and decisional conflict. It should be noted this is a self-reported diagnosis and the item on the questionnaire simply asked participants if they had been diagnosed with a mood disorder, depression, or anxiety following childbirth. It was hypothesized that women who endorsed psychological stress would experience higher levels of decision conflict, but this was not supported by the results. The levels of decisional conflict were significantly lower for those women who self-reported a diagnosis. This finding does make sense given that in order to receive a diagnosis, a mother would have to have had a conversation with a healthcare provider. This contact, and actually receiving a diagnosis, may decrease decisional conflict around treatment decision making. Early detection and diagnosis is important in this process to provide a mother the opportunity to explore treatment options, thus, potentially decreasing decisional conflict. Early detection and diagnosis helps guide the decision-making process. Women who are working with providers, and have been diagnosed, may be given more direct information or support regarding their treatment options, and in turn experience lower levels of indecisiveness. This could be an area for further research to understand how the diagnosis may or may not impact the decision-making process. Previous research has suggested the presence of symptoms of depression may impact decision making and increase indecisiveness. Often, individuals with depression experience higher levels of decisional conflict and struggle with decision making in general, not just with medical decisions (Sit & Wisner, 2005; van Randenborgh et al., 2010). This result is interesting and may warrant further investigation to determine if accurate diagnosing, along other contributing factors, decreases conflict. The presence of general stress or sadness did not appear to impact decisional conflict in this sample, which is promising as well.

The results are further supported by data collected on the “informed subscale” on the Decisional Conflict Scale. There are particular variables, including social and emotional variables, which may impact decisional conflict. These variables include the amount of information on particular courses of treatment, including information on risks and benefits. Other variables include personal values as well as how much support people have in making their decision (O’Connor, 1993). It has been suggested that less information, less clarity about values, and less social support may increase indecisiveness (O’Connor, 1993). Results from this study revealed women with a diagnosed mood disorder felt more informed about treatment options, and risks and benefits, than those who did not endorse a diagnosis. This is important for providers to understand as early detection and diagnosis may lead new mothers to gain access to information on treatment options and in turn, decrease decisional conflict. Furthermore, those women who had made a decision also felt more informed than those who had yet to decide. Information on diagnosis, treatment, and outcomes appears to have an impact on the process for new mothers. Providers can be better equipped to use screening measures to aid in detection and diagnosis, and feel more confident that the information they are providing about treatment options will impact the decision-making process.

In addition to feeling more informed, women who indicated they had been diagnosed with a mood disorder also had higher scores on the values clarity subscale. Women that had actually made a decision indicated that they were clearer about their personal values related to this healthcare decision. These results may be because women who had received a diagnosis have been in contact with medical or mental health providers, and as such, have had access to information and more of a chance to explore their personal values. However, there could be other factors contributing to this connection which could be examined with further research. Providers

can support mothers to clarify their own personal values and how they feel about outcomes to support their decision-making process. Results from this study revealed that a greater focus on these two areas may lead to a more effective decision-making process by lowering decisional conflict. Providers can provide high quality information on treatment options, risks and benefits, as well as help explore personal values with their patients to aid in the decision-making process. No differences were found in other areas of decisional conflict, such as perceived social support, levels of uncertainty, or effective decision making. Causality cannot be established regarding whether or not the diagnosis leads to lower conflict or if lower conflict was achieved because of more information and interactions with medical providers. Regardless, the results revealed there may be areas for providers to highlight when working with this particular population to support the decision-making process in the postpartum period.

Control in the decision-making process. Results from this study indicate new mothers prefer to retain some level of control in this process. There may be other healthcare decisions where patients prefer a more passive role and defer more control to the medical provider, such as cancer treatment (Degner et al., 1997). It is noteworthy that not a single respondent endorsed items which would defer control to the provider. Women who are experiencing symptoms in the postpartum period have an investment in the process. They want to be more active and have a shared, collaborative decision-making process with their providers. This is important information for providers to be aware of this as better outcomes will be achieved if they partner with their patients in the process, rather than take a directive approach. Other healthcare decisions may lead towards other trends where the patient prefers a passive role, but these results suggest patients want an active or collaborative role when exploring mental health treatment options. Women in general may desire more control over their healthcare as an informed consumer. Generally

speaking, it could be that women do not prefer the hierarchical model of medical decision making, but in turn, prefer a collaborative process in exploring treatment for their mental health needs.

Furthermore, it is important to note that psychological stress, anxiety, depression, income level, and education status did not impact this desire for a collaborative partnership. The majority of women in the sample preferred to retain control regardless of their symptoms or other demographic variables. This supports earlier research and further indicates the need for providers to understand how important the collaborative decision-making process is for seeking mental health treatment for postpartum depression (Patel & Wisner, 2011).

Provider's role in the process. Results from the study revealed that the participants preferred more control in some areas of decision making and less control in other areas. Their involvement varied depending on the decision-making task. Overall, women preferred a collaborative process where both the doctor and patient share responsibility for this healthcare decision. However, respondents indicated they wished to retain more control on the decision-making task. In reference to diagnosing and determining options, women opted for collaboration, but when asked directly who should be responsible for the actual decision, they indicated they wished to retain more autonomy rather than share this with their doctor. These results can help providers understand how their role may vary when working with new mothers around mental health treatment. Healthcare providers should be aware of how their role may differ depending on the task at hand. Women in this sample preferred an active, collaborative process overall, but desired even more control when making the actual decision. Healthcare providers may want to consider how their role varies depending on the task. For example, if they understand the importance of their expertise in diagnosing and providing the treatment options, they can focus

more energy in this area, while allowing autonomy for the actual decision. Results from this sample revealed women desired their provider to take a more active role for making the diagnosis, but may want their doctor to refrain from an active stance when actually choosing the treatment option. While it was hypothesized women would prefer collaborative decision making, results indicate that women preferred to retain a higher level of control than initially thought. Collaboration may be important related to the initial process of diagnosing and determining treatment option, but providers may need to understand women wish to have more control over the final decision about treatment for psychological stress in the postpartum period.

Treatment preferences. It was hypothesized that more women would prefer combined treatment options to address symptoms of psychological stress, anxiety, and depression (Patel & Wisner, 2011). Results from this study found that an equal number of participants opted for a combined treatment options and therapy only interventions. Notably, more women opted for no treatment over medication only interventions in this sample. It should be noted that this treatment preference is what the participants endorsed and may not reflect the treatment option they actually participated in. Further research could explore if women participated in their preferred treatment option and, if not, the reasons they did not participate. Literature on postpartum depression has revealed how complicated treatment decisions can be due to the risks and benefits associated with participating in treatment. Some research suggests women seeking treatment for psychological stress in the postpartum period are more hesitant to opt for psychopharmacological interventions than other populations (McCarthy & McMahon, 2008). Results from this study did reflect that trend, indicating women preferred either a combination of the two or opted for therapy only. There are many barriers to psychiatric treatment for this population, including accessibility of care, stigma, and risks associated with various treatment modalities (McCarthy &

McMahon, 2008). Given the impact on the mother, mother-infant dyad, and the potential impact on infant development, there are many factors to consider related to treatment options. Providers can be equipped with the knowledge that the majority of women prefer combined treatment options, including therapy and medication as indicated by this study and previous research (Patel & Wisner, 2011). Notably, providers should be aware of the reluctance to choose psychopharmacological interventions as the primary treatment modality as revealed in this study and research (McCarthy & McMahon, 2008; Patel & Wisner, 2011). When discussing treatment options, providers should be aware not only of the types of interventions, but that “no treatment” is also a viable option. Women in this sample indicated they preferred some type of interventions over no treatment, which is important information for providers. It is important to not only address diagnoses, but also to examine the options for intervention. Some literature indicates new mothers may fail to follow through on treatment options, but the process appears to be more complicated. The “no treatment option” is a viable option, and may not indicate a lack of follow through with treatment. Through understanding the decision-making process, it appears there are some mothers who come to the decision to decline treatment, which providers need to be made aware of. Given the impact of ongoing stress, anxiety, and depression on family functioning and infant development, providers and patients can revisit these treatment discussions if a mother initially declines treatment (Flynn, 2005; Paris et al., 2009).

Conclusion

The research on postpartum depression has determined this is a widespread health issue affecting many women in the United States and around the world. Symptoms of depression and anxiety in the postpartum period have been shown to affect the psychological health of the mother, the mother-infant dyad, infant development, and family functioning (Albright, 1993). As

such, earlier research sought to understand the medical decision-making process for new mother's in the postpartum period and their treatment preferences (Patel & Wisner, 2011). This study looked to explore these questions with a more diverse set of women to uncover treatment preferences, levels of decisional conflict, and desired role in decision making. Despite the small sample size, results indicated women did prefer a collaborative working relationship with their provider on problem solving, regardless of education status, socioeconomic status, or the presence of psychological stress, and preferred to retain more control to make the actual decision. This study supported earlier findings about women's treatment preferences and their desired role in the process (Patel & Wisner, 2011). Despite limitations related to lack of ethnic and racial diversity, and the small sample size, this study yielded results that can help support this process for mothers and their families. The study revealed decision conflict can delay decision making and, as such, providers should be equipped to partner with the patients and clients to work through the process and decrease decisional conflict. Medical providers and mental health professionals can use this information to inform their practice when working with new mothers and their families. Results revealed women do prefer combined treatment options or therapy only treatment options, but more importantly, women may prefer no treatment over medication only treatment options. Medical and mental health providers interested in helping support treatment decision making in the postpartum period should be aware of this complex process to provide the highest standard of care for the people they service.

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